

What is claimed is:

1. A method for generating a three-dimensional audio scene with a sound source whose spatiality is extended, comprising the steps of:

- a) generating a sound object; and
  - b) generating three-dimensional audio scene description information including sound source characteristics information for the sound object,
- wherein the sound source characteristics information includes spatiality extension information of the sound source which is information on the size and shape of the sound source expressed in a three-dimensional space.

2. The method as recited in claim 1, wherein the spatiality extension information of the sound source includes sound source dimension information that is expressed as an x component, y component and z component of a three-dimensional rectangular coordinates.

3. The method as recited in claim 2, wherein the spatiality extension information of the sound source further includes geometrical center location information of the sound source dimension information.

4. The method as recited in claim 2, wherein the spatiality extension information of the sound source further includes direction information of the sound source and describes a three-dimensional audio scene by extending the spatiality of the sound source in a direction vertical to the direction of the sound source.

5. A method for consuming a three-dimensional audio scene with a sound source whose spatiality is extended, comprising the steps of:

a) receiving a sound object and three-dimensional audio scene description information including sound source characteristics information for the sound object; and

b) outputting the sound object based on the three-  
5 dimensional audio scene description information,

wherein the sound source characteristics information includes spatiality extension information which is information on the size and shape of the sound source expressed in a three-dimensional space.

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6. The method as recited in claim 5, wherein spatiality extension information of the sound source includes sound source dimension information that is expressed as an x component, y component and z component of  
15 a three-dimensional rectangular coordinates.

7. The method as recited in claim 6, wherein the spatiality extension information of the sound source further includes geometrical center location information of  
20 the sound source dimension information.

8. The method as recited in claim 6, wherein the spatiality extension information of the sound source further includes direction information of the sound source  
25 and describes a three-dimensional audio scene by extending the spatiality of the sound source in a direction vertical to the direction of the sound source.

9. A three-dimensional audio scene data stream with  
30 a sound source whose spatiality is extended, comprising:

a sound object; and

three-dimensional audio scene description information including sound source characteristics information for the sound object data,

35 wherein the sound source characteristics information

includes spatiality extension information which is information on the size and shape of the sound source expressed in a three-dimensional space.

5           10. The data stream as recited in claim 9, wherein the spatiality extension information of the sound source includes sound source dimension information that is expressed as an x component, y component and z component of a three-dimensional rectangular coordinates.

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          11. The data stream as recited in claim 9, wherein the spatiality extension information of the sound source further includes geometrical center location information of the sound source dimension information.

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          12. The data stream as recited in claim 9, wherein the spatiality extension information of the sound source further includes direction information of the sound source and describes a three-dimensional audio scene by extending the spatiality of the sound source in a direction vertical to the direction of the sound source.

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